

LBNL – PROCUREMENT STANDARD PRACTICES

Section: 35 Research and Development

Subject: 35.1 Research and Development — General

PURPOSE:	This standard practice (SP) describes the procedures to be followed when subcontracting for basic or applied research and/or development (R&D) work.
POLICY:	The Laboratory will award subcontracts for R&D work when it is necessary to obtain scientific and technical knowledge or apply that knowledge toward the achievement of Laboratory, DOE, or national objectives.
SCOPE:	This SP applies to all subcontracts for basic or applied research and/or development work.
Exception	This SP does not apply to Intra-University transactions (see SP 44.1, <i>Intra-University Transactions</i>) or consortium agreements for the National Institutes of Health (NIH) (see SP 44.4, <i>National Institutes of Health Consortium Agreements</i>)
DEFINITIONS:	.
Applied Research	Applied research means the effort that (a) normally follows basic research but may not be severable from related basic research; (b) attempts to determine and exploit the potential of scientific discoveries or improvements in technology, materials, processes, methods, devices, or techniques; and (c) attempts to advance the state of the art. When being used by subcontractors in cost principle applications, this term does not include efforts in which the principal aim is design, development, or testing of specific items or services to be considered for sale; these efforts fall within the definition of "development" given below.
Basic Research	Basic research means research directed at increasing knowledge in science. The primary aim of basic research is a broader knowledge or understanding of the subject under study, rather than any practical application of the knowledge.
Development	Development means the systematic use of scientific and technical knowledge in the design, development, testing, or evaluation of a potential new product or service (or of an improvement to an existing product or service) to meet specific performance requirements or objectives. It includes the functions of design engineering, prototyping, and engineering testing. It excludes subcontracted technical effort for the sole purpose of developing an additional source for an existing product.

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PROCEDURES:

Statement of Work	<p>For each R&D subcontract, a statement of work must be developed that clearly and completely describes the area of exploration or end objectives and allows subcontractors freedom to exercise innovation and creativity. The statement of work should be worded for consistency with the type and form (e.g., completion, term, level of effort) of the subcontract contemplated.</p> <p>The statement of work should contain the following elements, as appropriate:</p> <ul style="list-style-type: none">• A statement of the area of exploration, tasks to be performed, and objectives of the research or development effort;• Background information that provides a clear understanding of the objective or requirement;• Information on factors, such as personnel, environment, and interfaces, that may constrain the results of the effort;• Reporting requirements and information on any additional items that the subcontractor is required to furnish as the work progresses; and• Any other considerations peculiar to the work to be performed.
Subcontract Type	<p>The type of subcontract to be used should be determined by the precision with which the goals, performance objectives, and specifications for the work can be defined.</p>
Solicitations	<p>Solicitations should be distributed to sources known to be technically qualified to perform R&D in the specific field of science or technology involved. See SP 5.1, <i>Publicizing Subcontract Actions</i>, for mechanisms by which the Laboratory may identify and seek potential sources. Solicitations should require offerors to present sufficient information to enable the Laboratory to evaluate their ability to perform the work. Offerors should identify in their proposals planned subcontracting of scientific or technical work, if any.</p>
Evaluation Criteria	<p>Offerors must be evaluated using criteria appropriate to the work. The following are examples of such technical criteria:</p> <ul style="list-style-type: none">• The offeror's understanding of the scope of the work;• The approach proposed to accomplish the scientific and technical objectives of the subcontract or the merit of the ideas or concepts proposed;• The availability and competence of experienced engineering,

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scientific, or other technical personnel;

- The offeror's experience;
- Pertinent novel ideas in the specific branch of science and technology involved; and
- The availability, from any source, of necessary research, test, laboratory, or shop facilities.

Additional factors to be considered are those pertaining to management capability, cost management, experience and past performance, subcontracting practices, and any other significant items.

Evaluation of Offers

Generally, selection is based on the proposal offering the greatest value to the Laboratory in terms of performance and other factors.

Scientific and Technical Reports

Research and development subcontracts should require subcontractors to furnish scientific and technical reports as a permanent record of the work accomplished under the subcontract. The reports required must be consistent with the objectives of the effort involved. The solicitation and subcontract must require delivery of sufficient copies of scientific and technical information products to satisfy the requirements of SP 4.4, *OSTI Reporting System*.

Rights In Inventions and Technical Data

R&D subcontracts must protect the Government's interests in inventions and technical data, by including the appropriate patent rights, rights in data, and related clauses (see SP 27.1, *Patents, Data, and Copyrights*).

Subcontracts must also specify the technical data, such as drawings, detailed technical specifications (vs. form, fit, and function data), and reports to be delivered.

Special Provisions

When R&D work is not precisely defined and the subcontract specifies only a period during which work will be conducted, research subcontracts should:

- Contain a statement that the subcontractor bears primary responsibility for the research;
- If the decision to award is based on a particular individual's research effort and management capabilities, provide the name of the principal investigator or project leader and the subcontractor's estimate of the amount of time that the individual will devote to the work;
- Require that the principal investigator or project leader:
 - Be closely involved and continuously responsible for the

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conduct of the work,

- Will not be replaced unless approved by the Laboratory, and
- Will advise the Laboratory if the individual will devote substantially less effort to the subcontract than anticipated; and
- Require the subcontractor to obtain the Laboratory's approval to change the phenomenon under study, the stated objectives of the research, or the methodology.

Although the above provisions apply specifically to subcontracts with educational institutions and nonprofit organizations, they also may be applied to subcontracts with commercial firms.

Notification of Unsuccessful Offerors and Debriefing

Notification of unsuccessful offerors and debriefings will be conducted in accordance with SP 15.7, *Notification of Unsuccessful Offerors*.

RESPONSIBILITIES:

Procurement Specialist

The procurement specialist must:

- Include a statement of work in each R&D subcontract that clearly and completely describes the area of exploration or end objectives;
- Select the appropriate type and form of subcontract that fits the work to be performed;
- Establish evaluation criteria and factors that will determine the most technically competent offeror;
- Include appropriate provisions in the subcontract applicable to the nature of the R&D to be performed;
- Require delivery of sufficient copies of scientific and technical information products to satisfy the requirements of SP 4.4, *OSTI Reporting System*;
- Protect the government's interests in patents and technical data rights; and
- Specify the technical data and reports to be delivered.

REFERENCES

Prime Contract Clause H.3 – Work for Others Program

Prime Contract Clause H.27 – Contractor-Funded Institutional Supporting Research and Development